

### ABSTRACT OF THE DISCLOSURE

The present invention provides method and apparatus of image buffer compression for video bit stream encoding. At least one re-constructed referencing frame pixel is compressed again and stored in a storage device.

- 10 During motion estimation of a video compression, a decompressing engine recovered pixels of the predetermined searching range for best match block searching. In the still image compression, a lossless compression algorithm is applied to compress pixel data of at least one line of pixels and to save the compressed pixels into a storage device, decompression mechanism recovers
- 15 at least one pixel of at least one line of pixels for predicting the value of a target pixel.